XPERIA™ neo

MT15i, MT15a

White paper
August 2011

Sony Ericsson
make.believe

Purpose of this document

Sony Ericsson product White papers are intended to give an overview of a product and provide details in relevant areas of technology.

Document history

Version		
August 2011	Sixth released version	Version 6

Sony Ericsson Developer World

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This White paper is published by:

Sony Ericsson Mobile Communications AB,
SE-221 88 Lund, Sweden

www.sonyericsson.com

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Sixth released version (August 2011)
Publication number: 1246-4221

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Product overview

Xperia™ neo — Smart. Sharp. And bright too

Dancers in the twilight. Breathtaking skateboard scenes. Shoot them sharp, even in low light. Take bright movies and photos using the 8.1 megapixel camera and Sony's award-winning Exmor™ R for mobile camera sensor. Then show it all on a sharper screen. With Sony's Mobile BRAVIA® Engine powering the super-sharp, multi-touch Reality display, you see colours and contrasts in a whole new light. Snap superb scenes in the sunset. Browse through the latest fashion catalogue. But don't forget your shades.

High octane fun on your TV. With HDMI™

Invite your friends to your big screen premiere. Just connect your phone to your HD TV using the built-in HDMI™ connector and start the show. Browse photos and videos using your TV's remote*. Bored already? Why not browse the web from Xperia™ neo to check out what's new on YouTube™**, or check out the games charts and download what's hot? All on your TV. Now that's entertainment.

More than 100,000 apps from Android Market™**

Find the app you'll love for doing what you like from Android Market™**. There's an app for whatever you want for whatever makes you smile. More than 100,000 actually. Busy? Get more efficient. Fix the date on Google calendar™**. Send your love by Gmail™**. Find your friends using Google maps™**. The whole world of Android™ and more in store. From the Xperia™ neo. One high quality phone with human curvature that's great to look at and good to hold.

*TV must be CEC compatible. Remote function only works for videos and photos, not for games or web browsing. Cable not included.

***The service is not available in all markets.*

Sony Ericsson signature features

Xperia™ neo comes with a range of Sony Ericsson features as standard. Below is a summary of the key signature features.

Sony Ericsson Timescape™

The place to meet your friends

The Timescape™ application manages all your communication with one person in one place. You can effortlessly browse by category your Facebook™, Twitter™, email and text communications, as well as view your photos. Now everything is all together and in chronological order, so you don't have to open different applications to see what's going on.

Infinite button

Everything you want – from everywhere

Tap the infinite button in the Timescape™ application and smart filter each category of communication by person. For example, when viewing a text message from a friend in Timescape™, tap the infinite button to view a list of all chat messages with that friend.

Sony Ericsson Sync

Your mobile life on the web

Synchronise your phone data using Sony Ericsson Sync so that you always have a backup. While you're at it, match your phone contacts with your Facebook™ contacts. All your synchronised phone data is right at your fingertips and in your account on www.sonyericsson.com.

Sony Ericsson Local connectivity

More control over your media

Using Sony Ericsson Local connectivity, you can exercise more control over how media files get transferred and stored. For example, you can select MTP mode to transfer files if you want to limit the risk of data corruption or select MSC mode if you want to have more control over the data storage.

Sony Ericsson Home screen application

The place you call Home

Customise your Home screen with widgets, shortcuts, folders, themes, wallpaper and other items. Where's best for you? Email top right? Music player bottom left? You decide. With four extensions to your Home screen, you've got plenty of space to put things where you want. Just remember to flick left or right to find them.

** Applications from the Android Market™ vary widely in size, from less than 100 KB for small utilities to 3-4 MB for full games, music player applications, or other major offerings. The average size, if a representative selection of useful and fun applications is selected, is about 1 MB. This means that, on average, more than 100 applications can be downloaded and used on your device without negatively impacting performance. With the ready availability of the Android Market™ application in the phone, it is also very easy to delete and later reinstall infrequently used applications.*

*** **Note**: Some of the services mentioned above may not be available in all markets.*

Facts – dimensions, weight, performance and networks

Operating system	Google™ Android™ 2.3 (Gingerbread)
Processor	1 GHz Qualcomm Snapdragon MSM8255
Size	116 x 57 x 13 mm
Weight	126 grams
Available colours	Blue Gradient Red Silver
Main screen	
Colours	16,777,216 colour TFT
Resolution	854x480 pixels
Size (diagonal)	3.7 inches
Scratch resistant	Yes
Input mechanisms	
Text input	On-screen QWERTY keyboard
Touch screen	Capacitive (multi-touch)
Touch gesture	Yes – multi-touch
Memory	
Internal phone storage	1 GB (up to 320 MB user-accessible memory)
RAM	512 MB
Expansion slot	microSD™, up to 32 GB
Camera	
Camera resolution	8.1 megapixel
Front facing camera	VGA
Smart zoom	Up to 2.46x
Video zoom	16x
Photo flash	Yes – LED
Video recording	Yes – HD 720p
Video call camera (dedicated camera)	Yes

Sensors	
Accelerometer	Yes
Proximity sensor	Yes
Ambient light sensor	Yes
Magnetometer	Yes
Networks	
MT15i	UMTS HSPA 900 (Band VIII), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900
MT15a	UMTS HSPA 850 (Band V), 1900 (Band II), 2100 (Band I) GSM GPRS/EDGE 850, 900, 1800, 1900
Data transfer speeds	
GSM GPRS	GSM GPRS: Up to 86 kbps
GSM EDGE	GSM EDGE: Up to 237 kbps
UMTS HSPA cat 6 (upload) 6 QPSK	Up to 5.76 Mbps
UMTS HSPA cat 8 (download) 8 QPSK	Up to 7.2 Mbps
Talk time (GSM)	Up to 6 hours 55 min*
Standby time (GSM)	Up to 430 hours*
Talk time (UMTS)	Up to 7 hours*
Standby time (UMTS)	Up to 400 hours*
Music listening time	Up to 31 hours
Video playback time	Up to 7 hours 25 min
Battery	1500 mAh

** Values are according to GSM Association Battery Life Measurement Technique.*

***NOTE**: Battery performance may vary depending on network conditions and configurations, and phone usage.*

Categorised feature list

Camera
3D sweep panorama
8.1 megapixel camera
2.46x smart zoom
Aperture f/2.4
Auto focus
Face detection
Flash/LED
Front-facing camera (VGA)
Geo tagging
HD video recording (720p)
Image stabiliser
Red-eye reduction
Scene detection
Self-timer
Send to web
Smile detection
Sony Exmor R™ CMOS sensor
Sweep panorama
Touch capture
Touch focus
Video light
Video recording
Video stabiliser

Music
Album art
Bluetooth™ stereo (A2DP)
Music tones (MP3/AAC)
PlayNow™ service*
Sony Ericsson Music player
TrackID™ music recognition*
xLOUD™

Internet
Android Market™**
Bookmarks
Google™ search*
Google Voice™ Search*
Pan & zoom
Web browser (WebKit)

Communication
Call list
Conference calls
Facebook™ application*
Facebook inside Xperia™ 2.0
Google Talk™ video chat*
Noise Shield
Polyphonic ringtones
Sony Ericsson Timescape™
Speakerphone
Twitter™ (Timescape™ integration)*
Vibrating alert
Video chat ready

Messaging
Conversations
Email
Google Mail™*
Instant messaging
Multimedia messaging (MMS)
Predictive text input
Sound recorder
Text messaging (SMS)

Design
Auto rotation
Keyboard (on-screen, QWERTY)
Live wallpaper
Picture wallpaper
Reality Display with Mobile BRAVIA® Engine
Screenshot capturing
Swipe to write
Touch screen

Entertainment

3D games
Accelerated Adobe Flash Video
Media browser
Motion gaming
Radio (FM radio with RDS)
Sony Entertainment Networks*
Video streaming
YouTube™*

Organiser

Alarm clock
Calculator
Calendar
Document readers
E-Manual
Flight mode
Google Calendar™*
Google Gallery 3D*
Infinite button
Phonebook
Setup Wizard
Widget manager

Connectivity

3.5 mm audio jack
aGPS
Bluetooth™ technology
DLNA
Google Latitude™*
Google Maps™ with Street View*
HDMI™ support
Media Transfer Protocol support
Micro USB connector
Modem
Native USB tethering
Synchronisation via Facebook™*
Synchronisation via Google Sync™
Synchronisation via Sony Ericsson Sync™
Synchronisation: Microsoft® Exchange ActiveSync®
USB mass storage
USB High speed 2.0 support
USB OTG
Wi-Fi®
Wi-Fi® Hotspot functionallity
Wisepilot™ turn-by-turn navigation*

** This service is not available in all markets.*

*** Applications from the Android Market™ vary widely in size, from less than 100 KB for small utilities to 3-4 MB for full games, music player applications, or other major offerings. The average size, if a representative selection of useful and fun applications is selected, is about 1 MB. This means that, on average, more than 100 applications can be downloaded and used on your device without negatively impacting performance. With the ready availability of the Android Market™ application in the phone, it is also very easy to delete and later reinstall infrequently used applications.*

Technologies in detail

NOTE: The information outlined below is general and levels of compliance to standards and specifications may vary between products and markets. For more information, contact Sony Ericsson Developer World or your Sony Ericsson contact person where applicable.

Device-to-device communications (local

Bluetooth™ wireless technology

Bluetooth™ profiles supported	Advanced Audio Distribution Profile v.1.2 Audio/Video Remote Control Profile v.1.0 Handsfree Profile v.1.5 Headset Profile v.1.1 Object Push Profile v.1.1 Phonebook Access Profile v.1.0
Core version and supported core features	Advanced Audio 2.1 + EDR
Connectable devices	All products supporting Bluetooth™ spec. 2.1 and at least one of the profiles above.

More information:

www.sonyericsson.com/developer

www.bluetooth.com

Wi-Fi®

Supported standards	IEEE 802.11b/g/n and Wi-Fi
Connectable devices	Wi-Fi access points
Frequency band	2.4 GHz
Data transfer rate	72 Mbit/s
Security	WEP 64 bit WEP 128 bit TKIP CCMP (AES) Open Authentication Shared Authentication EAP-TLS EAP-TTLS/MSCHAPv2 PEAPv0/EAP-MSCHAPv2 PEAPv1/EAP-GTC WPA Personal and WPA2 Personal WPA Enterprise and WPA2 Enterprise
Encryption	WEP, TKIP and AES
Power save	WMM-UAPSD QoS, WMM

DLNA Certified™ (Digital Living Home Alliance)

Supported Device Classes	M-DMS – Mobile Digital Media Server Media Types: Images Summary: The digital media server exposes the media files in your phone to a Wi-Fi® network. The files can then be accessed from other DLNA Certified™ clients.
Supported Bearers	Wi-Fi®
DRM Support	The Sony Ericsson DLNA Certified™ implementation does not support DRM-protected content.

Messaging

MMS (Multimedia Messaging Service)

According to OMA Multimedia Messaging Service v1.0 + SMIL

Email

Bearer type (IP)	GPRS, EGPRS, UMTS
Character sets	BIG5 Traditional Chinese GB2312 Simplified Chinese ISO-2022-JP Japanese ISO-8859-1 ISO-8859-2 Eastern Europe ISO-8859-5 Cyrillic ISO-8859-7 Greek ISO-8859-9 Turkish ISO 8859-11 KOI8-R Cyrillic Shift_JIS Japanese USASCII UTF-16 UTF-8 Windows® 874 Windows® 1251 Cyrillic Windows® 1252 Windows® 1254 Turkish Windows® 1258 Vietnamese
Protocols	POP3 and IMAP4
Push email	Microsoft® Exchange ActiveSync® (EAS)
Secure email	SSL/TLS, both (POPS/IMAPS) and STARTTLS port methods
HTML mail	Yes (read only)

More information:

www.sonyericsson.com/developer

www.openmobilealliance.org

Positioning – location based services

Supported standards:

- OMA Secure User Plane Location (SUPL) v1.0
- 3GPP™ Control Plane location (incl. Emergency location)
- Qualcomm® GPSOneXtra™

Supported satellite systems:

GPS

GLONASS*

* ***NOTE****: GPS and GLONASS are used together to calculate the position. With both systems active, the accuracy and robustness of the positioning is better in most conditions. The usage of GLONASS as an additional system is transparent both to users and developers, and the benefits are automatically available to applications currently using the Satellite Positioning API ("GPS Provider" in Android terminology).*

Provisioning (OMA CP)

OMA CP version 1.1

Multimedia (audio, image and video)

Audio Playback	**Decoder format**	**Supported in file format**
	Audio decoding MPEG-1/2/2.5, audio layer 3	MP3 (.mp3), 3GPP (.3gp), MP4 (.mp4, .m4a)
	AAC, AAC+, eAAC+	3GPP (.3gp), MP4 (.mp4)
	AMR-NB, AMR-WB	3GPP (.3gp), MP4 (.mp4)
	General MIDI (GM)	SMF (.mid)
	Linear PCM 16bit	WAV (.wav)
	OTA	OTA (.ota)
	Ogg vorbis	Ogg vorbis (.ogg)
Audio Recording	**Encoder format**	**Supported in file format**
	AMR-NB, AMR-WB	3GPP (.3gp), MP4 (.mp4), AMR (.amr)
	AMR-NB, AMR-WB, AAC-LC stereo, sample rate 48 kHz bit rate 128 kbps	3GPP (.3gp), MP4 (.mp4)
Image Playback	**Decoder format**	**Supported in file format**
	1, 4, 8, 16, 24 and 32 bpp and RLE encoded formats	BMP (.bmp)
	Single and multi-frame, bitmap mask support (GIF87a format and GIF89a format)	GIF (.gif)
	Joint Photographic Experts Group	JPEG (.jpg)
	Portable Network Graphics Bitmap mask support	PNG (.png)
	Wireless Bitmap	WBMP (.wbmp)
Image Capture	**Encoder format**	**Supported in file format**
	Joint Photographic Experts Group	JPEG (.jpg)
Video Playback	**Decoder format**	**Supported in file format**
	MPEG-4 Visual Simple Profile, Advanced Simple Profile Level 6	3GPP (.3gp), MP4 (.mp4)
	H.264 High Profile Level 3.1	3GPP (.3gp), MP4 (.mp4)
	H.263 Profile 0, Profile 3 Level 70	3GPP (.3gp)

Video Recording	Encoder format	Supported in file format
	Video H.263 Profile 0, H.264 Baseline Profile Audio: AAC-LC stereo, sample rate 48 kHz bit rate 128 kbps, AMR-NB	3GPP (.3gp), MP4 (.mp4)
Audio/Video Streaming	Streaming transport	RTSP according to 3GPP™ HTTP streaming
DRM	DRM (Digital Rights Management) – features the rights and copy protection of downloaded content	OMA DRM 1.0

Synchronisation (OMA DS, EAS, Google Sync™)

OMA Data Synchronisation protocol versions 1.1.2 and 1.2

OMA Data Formats: vCard 2.1, vCalendar 1.0

Microsoft® Exchange ActiveSync® protocol version 2.5

Microsoft® Exchange ActiveSync® protocol version 12

Google Sync™

Related information:

www.sonyericsson.com/developer

Web browser

Browser version	Android 2.3 Browser (Based on WebKit)
Navigation/rendering	Adobe™ Flash™ 10.3* Full page PC rendering Landscape/portrait rendering Pan & Zoom
Search	Internet Search
Browser compliancy	CSS 2.0 CSS 2.1 CSS 3.0 DOM 2.0 DOM 3.0 HTML version. 4.0 HTML version. 5.0 JavaScript 1.7/ECMA-script 262 3rd edition WebGL 1.0 XHTML Basic version 1.0 XHTML 1.1
Supported Device API	Geo-location API
Protocol compliancy	Gzip HTTP/1.1 OMA Download 1.0 TLS 1.0 and SSL 3.0

** Updates are distributed via Android market™.*

Related information:

www.sonyericsson.com/developer

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